

Notice of Allowability

Application No.

09/856,457

Examiner

Alicia Chevalier

Applicant(s)

KONISHI ET AL.

Art Unit

1772

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the after final response filed March 23, 2004.
2. ☒ The allowed claim(s) is/are 1-7 and 9-11.
3. ☒ The drawings filed on 18 September 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Notice of Allowability

1. Claims 1-7 and 9 are directed to an allowable product. Pursuant to the procedures set forth in the Official Gazette notice dated March 26, 1996 (1184 O.G. 86), claims 10 and 11, directed to the process of making, previously withdrawn from consideration as a result of a restriction requirement, are now subject to being rejoined. Claims 10 and 11 are hereby rejoined and fully examined for patentability under 37 CFR 1.104.

Since all claims previously withdrawn from consideration under 37 CFR 1.142 have been rejoined, the restriction requirement made in Paper No. 7, mailed March 27, 2003 is hereby withdrawn.

REASONS FOR ALLOWANCE

2. The following is an examiner's statement of reasons for allowance:

The base claims are: 1 and 10.

They can be summarized as follows:

1. A light guide plate characterized by comprising
 - an incidence face into which light from a light source is introduced
 - an emission face intersecting with said incidence face, from which light introduced from the incidence face is emitted, and
 - a nonincidence face side facing to said incidence face side;
 - obtained by melt molding
 - o a soft polymer*, and

Art Unit: 1772

- a thermoplastic resin containing alicyclic structure having a melt flow rate of at least 50 (g/10 min.) under a load of 2.16 kgf at 280 °C.

*Soft polymer means a polymer having a glass transition temperature (T_g) of not more than 30 °C, as defined in Applicant's specification on page 23, lines 18+.

10. A method of producing a light guide plate characterized by comprising

- an incidence face into which light from a light source is introduced
- an emission face intersecting with said incidence face, from which light introduced from the incidence face is emitted, and
- a nonincidence face side facing to said incidence face side;
- obtained by melt molding

- a soft polymer*, and
- a thermoplastic resin containing alicyclic structure having a melt flow rate of at least 50 (g/10 min.) under a load of 2.16 kgf at 280 °C.

*Soft polymer means a polymer having a glass transition temperature (T_g) of not more than 30 °C, as defined in Applicant's specification on page 23, lines 18+.

3. The closest prior art found can be summarized as follows:

Shinohara (JP 07-118344) discloses a light guide plate (*optical flat plate*) comprising an incidence face into which light from a light source is introduced, an emission face intersecting with said incidence face, from which light introduced from the incidence face is emitted, and a nonincidence face side facing to said incidence face side (*English abstract*).

Shinohara '344 fails to disclose the light guide obtained by melt molding a soft polymer, i.e. a polymer having a glass transition temperature (T_g) of not more than 30 °C, and a

Art Unit: 1772

thermoplastic resin containing alicyclic structure having a melt flow rate of at least 50 (g/10 min.) under a load of 2.16 kgf at 280 °C.

Shinohara (JP 08-094852) discloses a light guide plate (*light transmission plate*) comprising an incidence face into which light from a light source is introduced, an emission face intersecting with said incidence face, from which light introduced from the incidence face is emitted, and a nonincidence face side facing to said incidence face side (*English abstract*).

Shinohara '852 fails to disclose the light guide obtained by melt molding a soft polymer, i.e. a polymer having a glass transition temperature (T_g) of not more than 30 °C, and a thermoplastic resin containing alicyclic structure having a melt flow rate of at least 50 (g/10 min.) under a load of 2.16 kgf at 280 °C.

Shinohara et al. (US Patent 5,516,456) discloses a light guide plate comprising an incidence face into which light from a light source is introduced, an emission face intersecting with said incidence face, from which light introduced from the incidence face is emitted, and a nonincidence face side facing to said incidence face side (*column 1, lines 11-29, column 3, lines 8-17 and the abstract*).

Shinohara '456 fails to disclose the light guide obtained by melt molding a soft polymer, i.e. a polymer having a glass transition temperature (T_g) of not more than 30 °C, and a thermoplastic resin containing alicyclic structure having a melt flow rate of at least 50 (g/10 min.) under a load of 2.16 kgf at 280 °C.

Kim (US Patent 6,151,169) discloses a light guide plate comprising an incidence face into which light from a light source is introduced, an emission face intersecting with said incidence face, from which light introduced from the incidence face is emitted, and a

Art Unit: 1772

nonincidence face side facing to said incidence face side (*figure 6 and 7 and column 5, line 56 to column 7, line 15*).

Kim fails to disclose the light guide obtained by melt molding a soft polymer, i.e. a polymer having a glass transition temperature (T_g) of not more than 30 °C, and a thermoplastic resin containing alicyclic structure having a melt flow rate of at least 50 (g/10 min.) under a load of 2.16 kgf at 280 °C.

In sum, the prior art of record fails to teach or suggest a light guide plate or method of producing a light guide plate having all the features of the base claims.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia Chevalier whose telephone number is (571) 272-1490. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached on (571) 272-1498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications


Art Unit: 1772

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ac

4/16/04




HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

4/16/04